Lab 1 Report

Submitted by Aaryan Agarwal

## Delta rule:

This rule is used to update the weights of the training sample by 1 sample at a time. In our lab we have implemented this to calculate the weights in the neural network for the first part of the 1st task.

## Batch Delta Rule:

This rule follows the same algorithm as the delta rule, but it updates the weight by calculating the weights of a single batch at once. We have implemented this to calculate the weights in the neural network for the second part of the 1st task.

The input data that we have used consists of the sample of the number of fish, chips, and ketchup and the initial wights are set to 50,50,50 for both the delta rule and the batch delta rule.

The model we are using is a linear model with the dot product between the input matrix and the weight matrix.

The step-by-step implementation is explained in the code file.